

Title (en)
ROTARY DRILL BIT FOR DRILLING THROUGH STICKY FORMATIONS

Publication
EP 0365100 A3 19910403 (EN)

Application
EP 89202639 A 19891018

Priority
GB 8824546 A 19881020

Abstract (en)
[origin: EP0365100A2] A drill bit for drilling through sticky formations, such as chalk or marl, comprises a plurality of waterways 4 for transporting drilling fluid and rock flour to the gauge of the bit. These waterways have in downstream direction gradually increasing cross-sectional areas A, the increase of size of said areas along the length of a waterway being at least substantially proportional to the squared radius r thereof from the central axis 10. In this manner the rock flour velocity remains equal or decreases in downstream direction in the waterways so that the risk of rock flour accumulation and compaction is reduced.

IPC 1-7
E21B 10/60

IPC 8 full level
E21B 10/42 (2006.01); **E21B 10/43** (2006.01); **E21B 10/60** (2006.01)

CPC (source: EP US)
E21B 10/602 (2013.01 - EP US)

Citation (search report)
• [X] US 4696354 A 19870929 - KING WILLIAM W [US], et al
• [AP] EP 0295045 A2 19881214 - REED TOOL CO [US]
• [A] EP 0284238 A2 19880928 - REED TOOL CO [US]
• [A] EP 0269400 A2 19880601 - REED TOOL CO [GB]
• [A] EP 0032791 A1 19810729 - DRILLING & SERVICE UK LTD [GB]
• [A] GB 2185506 A 19870722 - SHELL INT RESEARCH

Cited by
CN111520079A; CN108945640A

Designated contracting state (EPC)
BE DE ES FR GB IT NL SE

DOCDB simple family (publication)
EP 0365100 A2 19900425; EP 0365100 A3 19910403; EP 0365100 B1 19940105; CA 2001178 A1 19900420; CA 2001178 C 20040316; DE 68912061 D1 19940217; DE 68912061 T2 19940428; DK 170866 B1 19960219; DK 519489 A 19900421; DK 519489 D0 19891019; ES 2048828 T3 19940401; GB 8824546 D0 19881123; NO 180551 B 19970127; NO 180551 C 19970507; NO 894176 D0 19891019; NO 894176 L 19900423; US 5197554 A 19930330

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